


```
>NM_170776 ACCESSION:NM_170776 NID: gi 25092692 ref NM_170776.1
      Homo sapiens similar to G protein-coupled receptor 56;
      EGF-TM7-like (GPR-97), mRNA
      Length = 1650
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Score = 1122 bits (2870), Expect = 0.0  
Identities = 548/549 (99%), Positives = 548/549 (99%)  
Frame = +1

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☐ 1: NM\_170776. Homo sapiens simi...[gi:25092692]

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LOCUS GPR-97 1650 bp mRNA linear PRI 23-DEC-2002  
 DEFINITION Homo sapiens similar to G protein-coupled receptor 56; EGF-TM7-like (GPR-97), mRNA.  
 ACCESSION NM\_170776  
 VERSION NM\_170776.1 GI:25092692  
 KEYWORDS .  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 1650)  
 AUTHORS Kuznicki,J., Kuznicki,L. and Drabikowski,W.  
 TITLE Ca<sup>2+</sup>-binding modulator protein in protozoa and myxomycete  
 JOURNAL Cell Biol. Int. Rep. 3 (1), 17-23 (1979)  
 MEDLINE 79211378  
 PUBMED 222487  
 REFERENCE 2 (bases 1 to 1650)  
 AUTHORS Fredriksson,R., Lagerstrom,M.C., Hoglund,P.J. and Schioth,H.B.  
 TITLE Novel human G protein-coupled receptors with long N-terminals containing GPS domains and Ser/Thr-rich regions  
 JOURNAL FEBS Lett. 531 (3), 407-414 (2002)  
 MEDLINE 22323027  
 PUBMED 12435584  
 REFERENCE 3 (bases 1 to 1650)  
 AUTHORS Fredriksson,R., Lagerstrom,M.C., Hoglund,P. and Schioth,H.B.  
 TITLE New human G-protein coupled receptors with long N-terminals containing GPS domains and Ser/Thr rich regions  
 JOURNAL Unpublished  
 COMMENT PROVISIONAL REFSEQ: This record has not yet been subject to final NCBI review. The reference sequence was derived from AY140959.1.  
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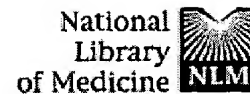
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ELSEVIER SCIENCE  
FULL-TEXT ARTICLE

## Novel human G protein-coupled receptors with long N-terminals containing GPS domains and Ser/Thr-rich regions.

Fredriksson R, Lagerstrom MC, Hoglund PJ, Schioth HB.

Department of Neuroscience, Uppsala University, BMC, Box 593, 751 24, Uppsala, Sweden.

We report eight novel members of the superfamily of human G protein-coupled receptors (GPCRs) found by searches in the human genome databases, termed GPR97, GPR110, GPR111, GPR112, GPR113, GPR114, GPR115 and GPR116. Phylogenetic analysis shows that these are additional members of a family of GPCRs with long N-termini, previously termed EGF-7TM, LNB-7TM, B2 or LN-7TM. Five of the receptors form their own phylogenetic cluster, while three others form a cluster with the previously reported HE6 and GPR56 (TM7XN1). All the receptors have a GPS domain in their N-terminus and long Ser/Thr-rich regions forming mucin-like stalks. GPR113 has a hormone binding domain and one EGF domain. GPR112 has over 20 Ser/Thr repeats and a pentraxin domain. GPR116 has two immunoglobulin-like repeats and a SEA box. We found several human EST sequences for most of the receptors showing differential expression patterns, which may indicate that some of these receptors participate in reproductive functions while others are more likely to have a role in the immune system.

### MeSH Terms:

- Amino Acid Sequence
- GTP-Binding Proteins/metabolism\*
- Human
- Molecular Sequence Data
- Phylogeny
- Receptors, Cell Surface/metabolism\*
- Receptors, Cell Surface/chemistry
- Sequence Homology, Amino Acid
- Serine/chemistry\*
- Support, Non-U.S. Gov't
- Threonine/chemistry\*

## Substances:

- GTP-Binding Proteins
- Threonine
- Serine
- Receptors, Cell Surface

PMID: 12435584 [PubMed - indexed for MEDLINE]

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